

Wirth Consulting

B2B Digital Imaging Product Evaluation

Friday, February 19, 2010 4:07:25 PM

WYSK

"What You Should Know"



Make	Konica Minolta	Model	magicolor 1680MF
Functions	Print/Copy/Scan	Imaging Technology	Laser
Classification	Entry-Level Toner-Based Color MFPs		

Introduced in January 2009 the magicolor 1680MF prints via a USB 2.0 port for local printing only, and fax is not included, nor is duplex printing or an automatic document feeder (platen-scanning only). At a list price of \$379, however, this is the lowest-priced competitor in this segment. Users who require duplex printing and/or an document feeder may consider the magicolor 1690MF (\$449.00). Capable performance, above average image quality, low color cost-per-page and Total Cost of Ownership, and office-quality software make this product Worth Consideration for low volumes.



Specifications

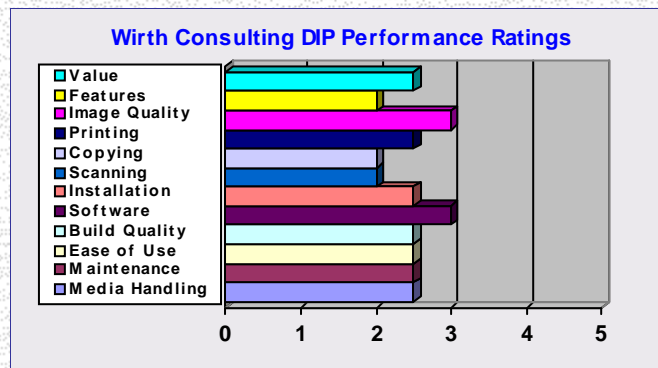
Max Monthly Duty Cycle	3500	Max Media Width (inches)	8.5	215.90 mm	Price	\$379.00	€271.52
BW/Color Print Speed (PPM)	20/5	Max Media Length (inches)	14.0	355.60 mm	Duplex	\$0.00	€0.00
Max Print Resolution (DPI)	1200x600	Max Media Wt. (bond, lbs.)	53.0	178.88 gsm	Print	\$0.00	€0.00
Standard Memory (MB)	64.00	Height (inches)	14.80	375.92 mm	Network	\$0.00	€0.00
Std Media Capacity (sheets)	200	Width (inches)	16.00	406.40 mm	Scan	\$0.00	€0.00
Max Media Capacity (sheets)	200	Depth (inches)	16.90	429.26 mm	Doc Feeder	\$0.00	€0.00
Power Consumption (watts)	1060	Weight (pounds)	42.00	19.05 kg	Full System	\$379.00	€271.52

Feature Checklist

Value Add	Print	Scan	Copy
USB Convenience Port <input type="checkbox"/>	Duplex Printing <input type="checkbox"/>	Color Scanning <input checked="" type="checkbox"/>	Duplex Document Feeder <input type="checkbox"/>
PC Fax <input type="checkbox"/>	Network Printing <input type="checkbox"/>	Network Scanning <input type="checkbox"/>	Ease of Use
Walk-Up Fax <input type="checkbox"/>	Microsoft Windows <input checked="" type="checkbox"/>	Software	Graphic Display <input type="checkbox"/>
LAN Fax <input type="checkbox"/>	Apple Mac <input checked="" type="checkbox"/>	Desktop Software <input checked="" type="checkbox"/>	Touch Screen <input type="checkbox"/>
Image Quality	Linux <input type="checkbox"/>	Web Utilities <input checked="" type="checkbox"/>	Navigation Keys <input checked="" type="checkbox"/>
BW Office IQ <input checked="" type="checkbox"/>	GDI Printing <input checked="" type="checkbox"/>	Media Handling	Maintenance
Color Office IQ <input checked="" type="checkbox"/>	PCL <input type="checkbox"/>	Feeds 110-lb. Index Stock <input checked="" type="checkbox"/>	All-in-One Toner Cartridge <input type="checkbox"/>
Professional IQ <input type="checkbox"/>	PostScript <input type="checkbox"/>	Max Weight from all Sources <input type="checkbox"/>	Finishing
Photographic IQ <input type="checkbox"/>	Adobe PostScript <input type="checkbox"/>	Holds Full Ream of Media <input type="checkbox"/>	Finishing <input type="checkbox"/>

Wirth Consulting Ratings* *On a scale of 0-5, with 5 being the best

Value	2.5
Features	2.0
Image Quality	3.0
Printing	2.5
Copying	2.0
Scanning	2.0



2.5	Installation
3.0	Software
2.5	Build Quality
2.5	Ease of Use
2.5	Maintenance
2.5	Media Handling

Ratings Scoreboard* *Highest possible scores: Overall, 60; Copier, 45; Printer, 50; Scanner, 40; Usability, 25

Overall Score	29.5	Copier Score	22.0	Printer Score	25.5	Scanner Score	20.0	Usability Score	13.0
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Model **magicolor 1680MF**

Classification **Entry-Level Toner-Based Color MFPs**

Consumables Pricing and Yields* *All supply yields are based on an original area coverage of 5% per color

Black Ink/Toner Price	\$64.99	Magenta Ink/Toner Yield (pages)	2,500	Maintenance Kit Price	\$119.99
Black Ink/Toner Yield	2,500	Yellow Ink/Toner Price	\$64.99	Maintenance Kit Yield	50,000
Cyan Ink/Toner Price	\$64.99	Yellow Ink/Toner Yield	2,500	Other Type	Drum
Cyan Ink/Toner Yield	2,500	Multicolor Ink Price		Other Price	\$88.99
Magenta Ink/Toner Price	\$64.99	Multicolor Ink Yield		Other Yield	45,000
Black Consumables Cost per Page		\$0.0304		Color Consumables Cost per Page	
				\$0.1108	

Total Cost Per Page*

Total Cost of Ownership**

*Cost Per Page and **Total Cost of Ownership include the purchase price depreciated over a five-year period. ***Mixed=Based on print usage of 66% Black and 33% Color

Monthly Volume	Black CPP	Color CPP	Monthly Volume	Black TCO	Color TCO	***Mixed TCO
50 pages	\$0.157	\$0.237	50 pages	\$462.92	\$704.08	\$537.88
100 pages	\$0.094	\$0.174	100 pages	\$546.84	\$1,029.17	\$700.54
250 pages	\$0.056	\$0.136	250 pages	\$798.60	\$2,004.42	\$1,188.54
500 pages	\$0.043	\$0.123	500 pages	\$1,218.21	\$3,629.84	\$2,001.86
1,000 pages	\$0.037	\$0.117	1,000 pages	\$2,201.40	\$7,024.67	\$3,771.07
2,000 pages	\$0.034	\$0.114	2,000 pages	\$4,023.80	\$13,670.34	\$7,166.92
3,000 pages	\$0.032	\$0.113	3,000 pages	\$5,846.20	\$20,316.01	\$10,562.78
4,000 pages	\$0.032	\$0.112	4,000 pages	\$7,668.61	\$26,961.68	\$13,958.63
5,000 pages	\$0.032	\$0.112	5,000 pages	\$9,491.01	\$33,607.35	\$17,354.49

Wirth Consulting Commentary

Strengths

- Low acquisition price of \$379.00.
- Relatively low black and low color cost per page of 3.0 and 11.0 cents respectively, and overall lowest total cost of ownership in this group.
- TWAIN and WIA scan drivers for pull scanning. LinkMagic and ScanSoft PaperPort 11 SE for managing scanned documents and for OCR.
- Print on heavier stock (up to 110 lb. index).
- PageScope Net Care Device Manager and PageScope Web Connection for monitoring and managing the system on the network.

Limitations

- No automatic document feeder--scan and copy is via flatbed copy only. Automatic duplex printing is not available. No fax.
- Local printing and scanning via USB 2.0 port (no network interface available standard or optional). (The magicolor 1690MF [\$449] provides network connectivity, fax, and an automatic document feeder as well as optional duplex printing).
- No PCL or PostScript print driver; uses a host-based Microsoft Windows GDI driver, which uses the processing power of the host computer workstation to process jobs.

Notes

- Fuser kit (\$199.99) is rated to yield 50,000 pages.
- Energy consumption is 1,060 watts maximum; 560 watts or less in black print mode, 410 watts or less in color print mode.
- Drum include OPC drum and waste-toner box.
- Copy speed rated at 21/3.5 ppm.

Best Use

Home and small offices that have low-volume color printing applications but do not require fax and have very low volume copying/scanning requirements as there is no automatic document feeder. Low cost per page is a plus. The magicolor 1690MF (\$449.00) uses the same print engine but its standard automatic document feeder, walk-up fax, wired networking and optional duplex printing make it a superior value.